

REMARKS

Prior to entry of this amendment, claims 1-5, 7-18, and 20-25 are currently pending in the subject application. Claims 1, 12, 21 and 23 are independent. Claims 1, 12, 21, and 23 have been amended, as supported by at least by original paragraph [0025].

A. Asserted Rejection of Claims 1-5, 7-18, 20-22, and 25 under 35 U.S.C. § 112

In the outstanding Office Action Made Final, claims 1-5, 7-18, 20-22, and 25 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Independent claims 1, 9, 12, and 21 have been amended to remove the language noted by the Examiner and to be consistent with paragraph [0025] of the original specification. Therefore, it is respectfully requested that this rejection be withdrawn.

B. Asserted Obviousness Rejections of Claims 1-5, 8-18, 21, and 23-25

In the outstanding Office action, claims 1-5, 8-18, 21, and 23-25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Asokan et al. reference in view of the Menezes et al. reference. Claims 1 and 12 have been amended to incorporate limitations previously pending in claims 3 and 14, respectively. Claims 21 and 23 have been similarly amended. The rejection of the subject matter in original claims 3 and 14 is respectfully traversed for at least the reasons set forth below.

Independent claims 1, 12, 21, and 23 have been amended to recite, *inter alia*, that a “wireless terminal encodes the initial second group key using the first group key, and transmits the encoded initial second group key” to the other wireless terminals. Applicants respectfully submit that neither the Asokan et al. reference nor the Menezes et al. reference, whether alone or in any combination, teach or even remotely suggest transmission of a modified second group key as currently recited in independent claims 1, 12, 21 and 23.

In particular, the cited references do not teach that at least one modified second group key, which is transmitted using the initial second group key, is transmitted and used during

use of the first group key. In other words, the cited references do not teach, *inter alia*, using at least one modified second group key, including an **overlapping use of the initial second group key and modified second group key**, during use of the first group key.

Further, applicants disagree with the interpretation in the outstanding Office action that since “A sends Ea encrypted with the weak secret P... . At this point, each player will compute the session key as  $K=f(Sa, Sb)$ ”<sup>1</sup> in the Asokan et al. reference teaches the features recited in claims 3 and 14. Applicants point out that Ea in the Asokan et al. reference is encrypted with **the weak secret P**, but the main wireless terminal as recited in the claims encodes **the second group key using the first group key**. If the weak key P corresponds to the first group key in the claims and the strong key K corresponds to the second group key in the claims, Ea in the Asokan et al. reference does **not** correspond to **the second group key** of the claims. Accordingly, Asokan et al. reference does not teach that the second group key is encrypted with the first group key.

It is respectfully submitted that the Asokan et al. reference and the Menezes et al. reference, whether alone or in combination, fail to disclose or suggest the subject matter recited in independent claims 1, 12, 21, and 23. The remaining rejected claims depend, either directly or indirectly, from respective ones of these independent claims, and are believed to be allowable for at least the reasons their respective base claims are believed to be allowable. Therefore, it is respectfully requested that this rejection be withdrawn.

C. Asserted Obviousness Rejection of Claims 7, 20, and 22

In the outstanding Office action, claims 7, 20, and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Asokan et al. reference – Menezes et al. reference further in view of the Schneier reference. This rejection is traversed for at least the reasons discussed below.

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<sup>1</sup> Office Action Made Final, mailed February 18, 2009, page 9, lines 3-9.

Claim 7 depends from claim 1, claim 20 depends from claim 12, and claim 22 depends from claim 25. Therefore, these claims are believed to be allowable for at least the reasons set forth above. As an additional matter, applicants respectfully point out that, contrary to the assertion in the outstanding Office action,<sup>2</sup> the Schneier reference does not teach encoding and transmitting a modified key with an initial key. In particular, the Schneier reference merely teaches updating a key, i.e., use portions of a first key to generate a second key. Since “generation” of a key is defined as -- bringing into being of a key --, “encoding” of a key is defined as -- putting a key into a code,-- and “transmitting” a key is defined as -- sending or conveying a key, -- generation of a second key using a first key as taught by the Schneier reference does not teach the limitations of claims 7, 20, and 22.

Therefore, it is respectfully requested that this rejection be withdrawn.

D. Asserted Obviousness Rejection of Claims 1-5, 8-18, 21, and 23-25

In the outstanding Office action, claims 1-5, 8-18, 21, and 23-25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Asokan et al. reference in view of the Billhartz et al. reference. This rejection is respectfully traversed for at least the reasons set forth below.

Applicants respectfully submit that the Billhartz et al. reference fails to teach or even remotely suggest features missing from the Asokan et al. reference, which were discussed in detail previously, i.e., in section B above. In particular, the Billhartz et al. reference does not teach that at least one modified second group key, which is transmitted using the initial second group key, is transmitted and used during use of the first group key. Therefore, it is respectfully submitted that claims 1, 12, 21, and 23 are allowable for at least the reasons discussed previously in section B above. The remaining rejected claims depend, either directly or indirectly, from respective ones of these independent claims, and are believed to

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<sup>2</sup> *Id.*, page 12, line 12.

be allowable for at least the reasons their respective base claims are believed to be allowable.

Therefore, it is respectfully requested that this rejection be withdrawn.

E. Asserted Obviousness Rejection of Claims 7, 20, and 22

In the outstanding Office action, claims 7, 20, and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Asokan et al. reference – Billhartz et al. reference further in view of the Schneier reference. This rejection is traversed for at least the reasons discussed below.

Claim 7 depends from claim 1, claim 20 depends from claim 12, and claim 22 depends from claim 25. Therefore, these claims are believed to be allowable for at least the reasons set forth above in Section E. Claims 7, 20, and 21 are further believed to be allowable for the reasons set forth in Section D. Therefore, it is respectfully requested that this rejection be withdrawn.

F. Asserted Obviousness Rejection of Claims 1-5, 8-18, 21, and 23-25

In the outstanding Office action, claims 1-5, 8-18, 21, and 23-25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Asokan et al. reference in view of the Kung et al. reference. This rejection is traversed for at least the reasons set forth below.

Applicants respectfully submit that the Kung et al. reference fails to teach or even remotely suggest features missing from the Asokan et al. reference, which were discussed in detail previously, i.e., in section B above. In particular, the Kung et al. reference does not teach that at least one modified second group key, which is transmitted using the initial second group key, is transmitted and used during use of the first group key. Therefore, it is respectfully submitted that claims 1, 12, 21, and 23 are allowable for at least the reasons discussed previously in section B above. The remaining rejected claims depend, either directly or indirectly, from respective ones of these independent claims, and are believed to

be allowable for at least the reasons their respective base claims are believed to be allowable.

Therefore, it is respectfully requested that this rejection be withdrawn.

G. Asserted Obviousness Rejection of Claims 7, 20, and 22

In the outstanding Office action, claims 7, 20, and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Asokan et al. reference – Kung et al. reference further in view of the Schneier reference. This rejection is traversed for at least the reasons discussed below.

Claim 7 depends from claim 1, claim 20 depends from claim 12, and claim 22 depends from claim 25. Therefore, these claims are believed to be allowable for at least the reasons set forth above in Section F. Claims 7, 20, and 21 are further believed to be allowable for the reasons set forth in Section C. Therefore, it is respectfully requested that this rejection be withdrawn.

I. Entry of Amendment requested

Entry of the above amendment after final is respectfully requested. The amendments to the claims merely incorporate language previously pending in dependent claims. Therefore, consideration of this amendment does not impose an undue burden on the Examiner.

J. Conclusion

The above remarks demonstrate failings of the rationales underlying the outstanding rejections, and are sufficient to overcome the outstanding rejections. However, these remarks are not intended to, nor need they, comprehensively address each and every reason for the patentability of the claimed subject matter over the applied art. Accordingly, applicants submit that the claims are allowable for reasons including, but not limited to, those set forth above, and patentability of the claims does not depend solely on the particular claim element discussed above.

In view of the foregoing amendments and remarks, reconsideration of this application is earnestly solicited, and an early and favorable further action upon all the claims is hereby requested.

If the Examiner believes that additional discussions or information might advance the prosecution of the instant application, the Examiner is invited to contact the undersigned at the telephone number listed below to expedite resolution of any outstanding issues.

Respectfully submitted,

LEE & MORSE, P.C.

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DEPOSIT ACCOUNT CHARGE AUTHORIZATION

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Any additional fee(s) necessary to effect the proper and timely filing of the accompanying-papers may also be charged to Deposit Account No. 50-1645.